

# Long Run Retention Facilities North Huntingdon, PA



**Capacity:** 3.0 MGD Water Retention Tank

**Date Completed:** December 2002

**Duration On-site:** 12 weeks

**Description:** Dutchland, Inc. designed and constructed a precast post-tensioned rectangular tank to provide an additional three million gallons of wet weather retention facilities at the Long Run Pump Station. Site constraints and a 100-year floodplain were the biggest challenges of the project. The retention tank was installed 30-feet deep on one side and sloped to 33-feet deep to provide for drainage. Additionally, 192 rock anchors were installed across the bottom of the tank to resist uplift. The tank, measuring 65-feet wide by 285-feet long and constructed during the winter months, was constructed of precast concrete walls, corners and tees, set on a cast-in-place base slab and covered with a precast roof. By maximizing engineering efficiencies, Dutchland, Inc. provided Long Run with a state-of-the-art structural design that generated almost \$1 million in savings over a cast-in-place design.